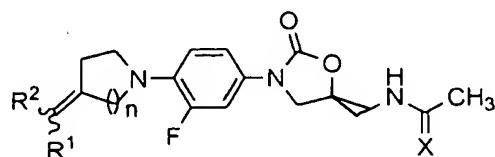


What is claimed is:

1. A methyldene oxazolidinone compound represented by the following formula (1) or a pharmaceutically acceptable salt thereof:



(1)

wherein X represents an oxygen or sulfur atom;

R¹ and R² independently represent hydrogen atom, cyano group, alkyl group, halogen atom, acetoxy group, ethoxycarbonyl group, hydroxy group, 10 hydroxyimino group, methoxyimino group or aminoethyl group, or a unsaturated 5-membered heterocyclic substituent containing one or more hetero atoms selected from the group consisting of oxygen, nitrogen and sulfur; and

n represents an integer 1 or 2.

15 2. The compound according to claim 1, wherein the alkyl group is methyl, ethyl or propyl group, the halogen atom is chlorine or bromine atom, the acetoxy group is the one substituted with one or more chlorine atoms, and the 5-membered heterocyclic substituent is isoxazole, thiophene, thiazole, isothiazole or thiadiazole.

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3. The compound according to claim 1, which is N-[(5S)-3-[3-fluoro-4-(3-dicyanomethylidene)pyrrolidin-1-yl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-((3-(1-ethoxycarbonyl-1-cyano)methylidene)pyrrolidin-1-yl)-

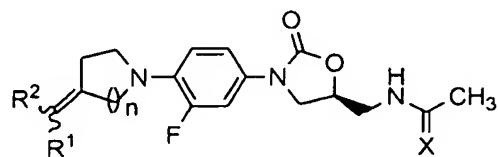
phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(3-cyano-
methylidene)pyrrolidin-1-yl]-phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide,
N-[(5S)-3-[3-fluoro-4-((3-(1-methyl-1-cyano)methylidene)pyrrolidin-1-yl)phenyl]-2-
oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(1-cyano-2-ethoxy-
5 carbonylethylidene)piperidin-1-yl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide,
N-[(5S)-3-[3-fluoro-4-(4-dicyanomethylidene)pyrrolidin-1-yl)phenyl]-2-oxo-5-oxazol-
idinyl]methylacetamide, N-[(5S)-3-[3-fluoro-4-((4-(1-ethoxycarbonyl-1-cyano)-
methylidene)piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-
[3-fluoro-4-(4-cyanomethylidene)piperidinyl)-phenyl]-2-oxo-5-oxazolidinyl]methyl]-
acetamide, N-[(5S)-3-[3-fluoro-4-((4-(3-thiophen-2-yl-5-isoxazolyl)methylidene)-
10 piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-
((4-(3-(3-methyl-isothiazol-4-yl)-iso-xazolyl)methylidene)piperidinyl)phenyl]-2-oxo-
5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-((4-ethoxycarbonyl-
methylidene)piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-
15 [3-fluoro-4-(4-methylcarbonylmethylidene)piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]-
methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(1-ethoxycarbonylethylidene)-
piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-
(4-carboxymethylidene)piperidinyl)-phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide,
N-[(5S)-3-[3-fluoro-4-((4-(1-ethoxycarbonyl-1-chloro)methylidene)piperidinyl)-
20 phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(1-
cyanoethylidene)piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-
[(5S)-3-[3-fluoro-4-(4-(2-oxoethylidene)piperidinyl)-phenyl]-2-oxo-5-oxazolidinyl]-
methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(2-hydroxyiminoethylidene)piperidinyl)-
25 phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(2-
methoxyiminoethylidene)piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide,

N-[(5S)-3-[3-fluoro-4-(4-(2-hydroxyiminopropylidene)piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(2-methoxyimino-propylidene)piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(2-hydroxypropylidene)piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(2-acetoxypropylidene)piperidinyl)-phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(2-(chloroacetoxy)-propylidene)piperidinyl)-phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(2-(dichloroacetoxy)propylidene)piperidinyl)-phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide, N-[(5S)-3-[3-fluoro-4-(4-(cyano-methylidene)-piperidinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]thioacetamide, or a hydro-chloride salt thereof.

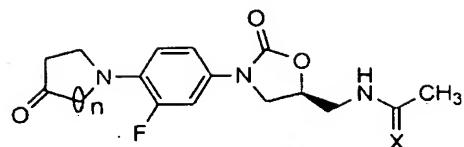
4. The compound according to claim 1, wherein the pharmaceutically acceptable salt is a methanesulfonate, fumarate, hydrobromide salt, citrate, maleate, phosphate, sulfate, hydrochloride salt or a sodium salt.

5. A method for preparing a compound of formula (1) which comprises reacting a compound of formula (2) with a compound of formula (3) in the presence of a catalyst, using or without using a solvent:

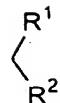
20



(1)



(2)



(3)

wherein X represents an oxygen or sulfur atom;

5 R¹ and R² independently represent hydrogen atom, cyano group, alkyl group, halogen atom, acetoxy group, ethoxycarbonyl group, hydroxy group, hydroxyimino group, methoxyimino group or aminoethyl group, or a unsaturated 5-membered heterocyclic substituent containing one or more hetero atoms selected from the group consisting of oxygen, nitrogen and sulfur; and

10 n represents an integer 1 or 2.

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6. The method according to claim 5, wherein R¹ is cyano group and R² is cyano or ethoxycarbonyl group.

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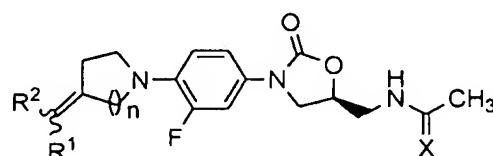
7. The method according to claim 5, wherein the solvent is dichloromethane or benzene.

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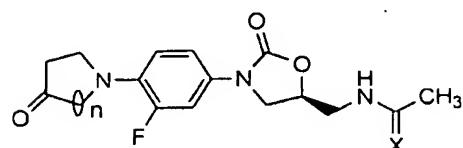
8. The method according to claim 5, wherein the catalyst is selected from the group consisting of alumina, ammonia, triethylamine, pyridine, piperidine, potassium fluoride, cerium fluoride and titanium chloride.

9. The method according to claim 5, wherein the reaction is carried out at room temperature or at 50 – 100°C.

10. A method for preparing a compound of formula (1) which comprises reacting a compound of formula (2) with a compound of formula (4) using a base and a solvent:



(1)



(2)

(4)

wherein X represents an oxygen or sulfur atom;

10 R¹ and R² independently represent hydrogen atom, cyano group, alkyl group, halogen atom, acetoxy group, ethoxycarbonyl group, hydroxy group, hydroxyimino group, methoxyimino group or aminoethyl group, or a unsaturated 5-membered heterocyclic substituent containing one or more hetero atoms selected from the group consisting of oxygen, nitrogen and sulfur; and

15 n represents an integer 1 or 2.

11. The method according to claim 10, wherein the solvent is selected from the group consisting of tetrahydrofuran, dimethylethane and dimethylformamide.

20 12. The method according to claim 10, wherein the base is sodium hydride or potassium t-butoxide.

13. The method according to claim 10, wherein the reaction is carried out at room temperature or at 40 – 100°C.